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ABSTRACT

Examined were the relationships between attitudes toward the handicapped and nonverbal behavior of 60 special education teachers involved in inservice or preservice coursework. Ss were administered the Attitudes Toward Handicapped Individuals (ATHI) Scale and the Nonverbal Behavior Characteristics Scale (NBCS). Analysis of the data indicated a significant correlation between attitudes toward the handicapped (as measured by ATBI) and self reported nonverbal behavior (as measured by NBCS). Correlations between the two instruments for subgrouping revealed that female Ss, Ss aged 26-35 years, and Ss scoring high on the ATHI produced the highest coefficients concerning scores on the two scales. (CL)

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THE RELATIONSHIP BETWEEN ATTITUDES TOWARD THE HANDICAPPED AND NONVERBAL BEHAVIOR WITH EDUCATORS OF SPECIAL NEEDS STUDENTS: AN EXPLORATORY STUDY

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Introduction

Increasing numbers of educators are re-examining curriculum content and teaching methods with the intention of making them more relevant to the needs of children, particularly differing learning styles of children with special needs. Yet research studies indicate there is more to the learning environment than content and method (Maslow, 1970; Combs, 1965; Cogan, 1958). The factor of human interaction, the flow of affect from teacher to student is partly a conscious and partly an unconscious process of implication and inference that occurs nonverbally within and around the deliberate verbal exchange of information. While it is more subtle than the exchange of verbal information, it is no less powerful with respect to the outcomes of learning, for it defines the relationship context of the learning environment.

Research findings (Woolfolk & Woolfolk, 1975; Combs, 1959; Galloway, 1971) lend support to the growing number of persons who argue that those teachers who will make the most significant differences with student learning must be more than competent technicians; they must also be people who know something about themselves and others, and who possess interpersonal competencies as well as pedogogical skills. For those concerned with teacher education, this presents the complicated and difficult task of assessing and evaluating attitudes and behavior, and developing

training and teaching strategies to maximize the effectiveness of human interaction in the learning situation.

Indications are that the continuous flow of verbal and nonverbal cues which are emitted in interpersonal situations, reciprocally modify and control patterns of interpersonal interaction. Evaluative reactions are conveyed through nonverbal cues of gesture, tone, or facial expression and can be perceived as approval or disapproval, thus strengthening or weakening response patterns.

Research related to the effects of teacher behavior upon student learning have largely excluded considerations of the nonverbal dimension. Using a semantic differential technique, Goldberg and Mayerberg (1973) attempted to determine emotional reactions of students toward differing nonverbal teacher behavior. Positive nonverbal teacher behaviors were most acceptable to the students, with variations related to sex and ethnic status.

With the development of an operationally explicit instrument, Loss (1973) attempted to assess both verbal and nonverbal teacher-learner behaviors with the use of five minute video tape segments. Findings indicated that approval tended to be of a passive, nonverbal nature, whereas disapproval was expressed in an explicit or verbal manner. Also, verbal expressions of approval were relatively unrelated to pupil responsiveness where-

as nonverbal cues were associated with pupil task relevant behaviors. The author concluded that affectively pleasant, presumably supportive nonverbal responses were strongly related to enthusiastic task related participant verbal activity by pupils. In agreement, findings by Loss (1973) indicated that teacher and student nonverbal behavior was interdependent in regards to locomotion, affective facial attitudes, and body torso position.

Rating a twenty minute sample of behavior, Woolfolk and Woolfolk (1975) studied the effects of positive verbal and nonverbal evaluative behavior upon student self disclosure. Congruency between verbal and nonverbal behaviors of the teacher were also measured. Findings indicated that positive nonverbal behavior was the most influencial contributing factor to self disclosure, and that negative verbal and nonverbal evaluative behavior effected male students unwillingness to self disclose more so than females. As observed by Galloway (1974) and Woolfolk and Woolfolk (1974) the nonverbal or affective dimension has been minimized, underplayed, and sometimes overlooked in teacher-learner research partly due to the following research problem; since stimuli occur all at once, it is difficult to determine which cues are salient, and it is hard to recognize when an expressive cue is salient.

In a discussion of attitudes as determinants of behavior (Yuker, 1965) indicated that knowledge of attitudes toward an individual or group of individuals will help to understand the interaction process. Vast amounts of research time have been allotted to the importance of attitudes toward the handicapped (Lazar, Stodden, & Graves, 1974, special needs educators; Kelly & Menoloszino, 1975, physicians; Rokeach, 1971, regular educators; Lazar, Stodden, & Sullivan, 1974, school administrators), yet few research reports have been reported studying attitudinal-behavior relationships. One of the traditional problems in attitude research has been that of reconciling measures of stereotypic response with measures of actual behavior. Jordan and Maierle (1969) view attitudes as predispositions of action embracing a variety of responses from stereotypic generalizations to specific behaviors. Centers and Centers (1963) and Alessi and Anthony (1969) while studying the effects of physical disability upon behaviors, noted that the presence of an amputation represented a threat to the bodily integrity of the non-amputated children, creating a barrier to social acceptance, which was clearly indicated through proxemic variation.

Further exploratory attempts to conceptualize the relationships between nonverbal cues and attitudes have been attempted in differing forms. James (1932) provided some experimental evidence relating nonverbal proxemic variables toward attitudes

of approach. He used photographs as the stimuli, assessing the attitude by posture and body position. Findings supported the indication that a forward leaning position communicates a relatively positive attitude, with the converse being true for the leaning back position. Exline (1963), Machotka (1965), and Mehrabian (1968) found similar results with other nonverbal cues, such as, eye contact, position of arms, body orientation, and degree of tension. Despite the pressing need for more exploratory research, support is offered to indicate that positive-negative nonverbal behaviors are related to accepting-rejecting attitudes.

Specifically, the major purposes of the present research are listed as follows:

(1) the development and field test of a self report nonverbal behavior rating scale;

(2) the provision of exploratory descriptive data concerning the relationship between attitudes toward the handicapped and nonverbal behaviors.

Procedures

The purpose of this research was to field test a nonverbal behavior assessment instrument and conduct an exploratory investigation into relationships between attitudes toward the handicapped and nonverbal behavior.

Subjects

The subjects under study were 60 educators of special needs students involved in coursework of an inservice and preservice nature in special education. The subjects were all involved in courses of similar content and recently had or were nearing completion of a credential to teach in special education. Through a process of random selection the variation within the sample concerning age, sex, interest, and educational background was representative of the population of available special needs educators.

Instrumentation

Two instruments measuring different aspects of human attitudes and behavior were utilized for this research. Both instruments measure variables on a positive-negative continuum.

(1) Attitudes Toward Handicapped Individuals (ATHI) Scale. The ATHI is a 20-item Likert type scale (Lazar, 1973), which is a modification of the Attitudes Toward Disabled Persons (ATDP) scale developed by Yuker, Block, and Younng (1966). The function of the ATHI is to measure attitudes of acceptance or rejection of handicapped individuals. The range of scores is from 0 to 120, with higher scores indicating greater acceptance of the handicapped and lower scores indicating rejection. Previous use of the ATDP indicated that the term "disabled" was restrictive in measuring attitudes toward exceptional groups

other than the physically disabled. Thus, in construction of the ATHI, the term "handicapped" was substituted for the term "disabled." A product-moment correlation of +.802 (α = .01) was reported between the ATHI and the ATDP (form O) and a coefficient of stability (test-retest) of +.732 (α = .01) over a two week period for the ATHI (Stodden, Graves, & Lazar, 1973).

(2) Nonverbal Behavior Characteristics Scale (NBCS)

The NBCS measures the respondents nonverbal behavior on a positive-negative continuum with items discriminating positive-open versus negative-closed nonverbal behaviors. Responses are of a self-report nature according to preference on a 6-point Likert type scale. The possible range of positive scores are from 0 to 150, with higher scores indicating a more positive-open respondent and lower scores indicating a more negative-closed repsondent. The instrument is presently in the field test stage concerning appropriateness of item clusters and response layout. A coefficient of stability (test-retest of +.716 (α = .001) was found over a three week period as an estimate of initial reliability of the instrument. All items were selected on the basis of face research validity and are presently being analyzed individually and within clusters for statistical validity and reliability.

Collection and Treatment of the Data

The two instruments were administered as a group test using similar administrative procedures for each group. The total time

for administration of both instruments totaled approximately 20 minutes. The SPSS Ver=602 computer library was called upon to describe and statistically treat the data through cross tabulation and scattergram procedures in addition to correlational analysis. A description and analysis of the data was completed for the intact sample and for selected subgroupings concerning score level, age, sex, and race.

Results

Analysis of the data yielded mean scores and standard deviations for the ATHI ($u = 74.98$, $SD = 10.2$) and the NBCS ($u = 72.33$, $SD = 9.5$) over a sample of 60 subjects. Statistical analysis utilized the Person product-moment correlation subprogram which yielded a correlation coefficient of $r = +.61$ (statistically significant at the .001 level), between the ATHI and NBCS. This finding of a significant correlation supported previous contentions concerning a positive relationship between attitudes toward the handicapped (as measured by the ATHI) and self reported nonverbal behavior (as measured by the NBCS).

Through effective use of a scattergram (Table 1) it was possible to indicate the magnitude of the correlation coefficient and examine the ability of the data to meet the assumptions involved in the computations of r. The shape of the charted data indicated that the assumptions of rectilinear regression and homoscelasticity were met validating the significance of the correlation coefficients.

In conjunction with the principle overall correlational tests between the ATHI and the NBCS, a number of descriptive correlations involving subgroupings were analyzed to extract relevant relationships which might lend further insight into the results. These subgroupings included high and low level scores and race, sex, and age groupings.

In reference to group levels, the respondents were divided into groups on their ATHI scores (71 and above, Group I; 70 and below, Group II). Both the high (Group I) and low (Group II) respondents on the ATHI were grouped and correlated separately with their results on the NBCS. Group I displayed a slightly higher correlation coefficient ($r = +.44$) than Group II ($r = +.30$) suggesting that higher scoring respondents on the ATHI also score higher or more positive on the NBCS.

Similarly, other subgroupings, such as, female groupings produced a correlation coefficient of $r = +.63$ between the ATHI and NBCS as compared to a correlation coefficient $r = +.50$ for male groupings. Differing correlation coefficients were also obtained through analysis of respondents scores on the ATHI and NBCS with four age groupings: under 25, 26 to 35, 36 to 50, and over 50; correlations of .55, .72, .55, and .52 were recorded respectively. The age group of 26 to 35 produced a higher positive correlation than any of the other groups. The subgroups for race did not produce correlational variance with the two instruments.

Discussion

An exploratory analysis of the data indicated that with special needs educators, accepting-rejecting attitudes toward the handicapped are significantly related to accepting-rejecting nonverbal behaviors of the respondent. Correlations between the two instruments for subgroupings, such as, group, sex, and age indicated that females, subjects between ages 26 to 35, and those scoring high on the ATHI produced the highest coefficients concerning scores on the two instruments.

These findings lend support to other related studies (Woolfolk & Woolfolk, 1975; Mehrabian, 1968) and to the number of professionals investigating the affective-behavioral element of the learning environment. Due to the exploratory nature of the present investigation with the NBCS, the findings of this research would most appropriately be applied to define direction for further investigation and use of the NBCS, rather than any attempts to make causal statements or conclusions regarding the relationship between attitudes toward the handicapped and nonverbal behavior.

In light of the present findings and the indicated need to continue exploration with nonverbal behavior and attitude assessment, the authors offer the following considerations:

(1) A need to compare observer ratings of nonverbal behavior (form B) with self report responses.

(2) A need to define and assess specific attitude variables (factors within connotative and denotative domains; Stodden & Ianacone, 1975) and define specifically pinpointed nonverbal behaviors.

(3) A need for an item and cluster analysis on present items of the NBCS and an investigation of their appropriateness with the general population as well as educators.

(4) A need to investigate further the influences of nonverbal behavior, as measured by the NBCS, upon the learning environment (teacher-student motivational levels).

(5) A need to explore implicit attitude communication with investigation in the areas of encoding and decoding strategies.

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